## ABSTRACT

### Gas Flow Measurement Device

Devices for the measurement of volumetric flow rate of a gas in a conduit are described. A vane arrangement is subjected to airflow and is displaced in response thereto. The vane arrangement forms a light guide, and one end of the vane arrangement receives an encoded light source, the encoding being over the range of displacement of the vane. In one form, the encoding can be achieved by a light source and a mask, the mask being shaped to provide for variance of the light transmitted therethrough as a function of the vane displacement range. One form of mask can be a tapered arrowhead. Embodiments of the flow rate measurement device offer good dynamic response. The measuring device can be incorporated in CPAP or ventilatory assist devices for the control thereof.

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